

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P557487

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-93-97-EDD**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P557487  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FUSL-12-4-LD4-2STD-30-UNV-93-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE  
AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND  
3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

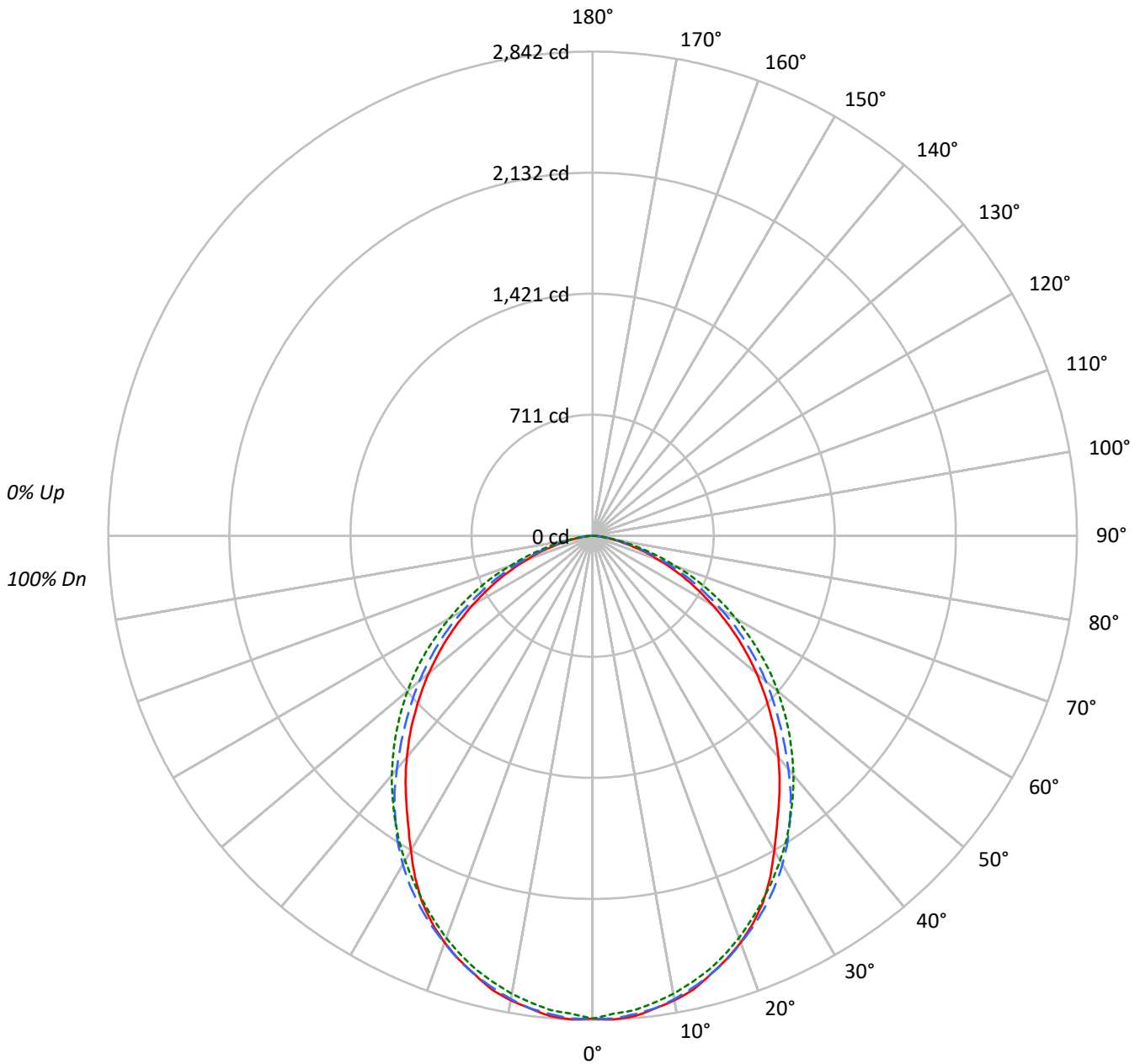
Lumens per Lamp: N/A  
Luminaire Lumens: 6554.0 lumens  
Efficiency: N/A  
Efficacy: 98.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7627	7627	7627
5°	7648	7615	7551
10°	7567	7546	7459
15°	7432	7432	7347
20°	7275	7284	7191
25°	7035	7123	7010
30°	6625	6923	6838
35°	6260	6636	6646
40°	5956	6277	6441
45°	5615	5897	6199
50°	5256	5557	5936
55°	4848	5170	5614
60°	4366	4718	5222
65°	3855	4195	4749
70°	3212	3573	4035
75°	2524	2853	3159
80°	1805	2008	2227
85°	1176	1176	1108



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	266.9	4.1
10°-20°	749.7	11.4
20°-30°	1095.6	16.7
30°-40°	1243.6	19.0
40°-50°	1200.5	18.3
50°-60°	990.3	15.1
60°-70°	659.5	10.1
70°-80°	295.1	4.5
80°-90°	52.8	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2112.2	32.2
0°-40°	3355.8	51.2
0°-60°	5546.6	84.6
0°-90°	6554.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6554.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2834	2834	2834	2834	2834	
5°	2831	2830	2819	2804	2795	268
15°	2668	2674	2668	2656	2637	752
25°	2370	2388	2399	2381	2361	1085
35°	1906	1932	2020	2031	2023	1194
45°	1476	1500	1550	1620	1629	1138
55°	1033	1051	1102	1163	1197	922
65°	605	622	659	706	746	600
75°	243	256	274	288	304	266
85°	38	38	38	36	36	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2834.4	2834.4	2834.4	2834.4	2834.4
2.5°	2842.1	2843.1	2836.6	2819.2	2808.3
5°	2831.2	2830.1	2819.2	2803.9	2795.2
7.5°	2799.6	2801.8	2798.5	2776.7	2764.7
10°	2769.1	2770.2	2761.5	2744.1	2729.9
12.5°	2729.9	2728.8	2716.8	2708.1	2685.3
15°	2667.8	2674.4	2667.8	2655.9	2637.3
17.5°	2607.9	2607.9	2612.3	2591.6	2577.5
20°	2540.4	2543.7	2543.7	2527.4	2511.0
22.5°	2462.0	2471.8	2475.1	2457.7	2438.1
25°	2369.5	2388.0	2398.9	2381.4	2360.8
27.5°	2257.3	2285.6	2318.3	2305.2	2282.4
30°	2132.1	2173.5	2227.9	2217.0	2200.7
32.5°	2013.4	2054.8	2129.9	2125.6	2116.8
35°	1905.6	1931.7	2019.9	2030.8	2023.2
37.5°	1803.2	1827.2	1910.0	1935.0	1928.5
40°	1695.4	1721.6	1786.9	1831.5	1833.7
42.5°	1588.7	1613.8	1667.1	1731.4	1731.4
45°	1475.5	1500.5	1549.5	1620.3	1629.0
47.5°	1364.4	1390.5	1438.5	1509.2	1523.4
50°	1255.5	1279.5	1327.4	1396.0	1417.8
52.5°	1142.3	1168.4	1215.2	1278.4	1310.0
55°	1033.4	1050.8	1102.0	1163.0	1196.7
57.5°	920.1	936.5	994.2	1046.4	1081.3
60°	811.2	831.9	876.6	929.9	970.2
62.5°	706.7	728.5	766.6	813.4	859.2
65°	605.4	621.8	658.8	705.6	745.9
67.5°	507.4	521.6	558.6	591.3	633.7
70°	408.3	426.9	454.1	485.7	512.9
72.5°	328.9	336.5	359.3	382.2	410.5
75°	242.8	255.9	274.4	287.5	303.8
77.5°	174.2	181.8	192.7	203.6	218.9
80°	116.5	119.8	129.6	131.8	143.7
82.5°	70.8	73.0	75.1	76.2	80.6
85°	38.1	38.1	38.1	35.9	35.9
87.5°	21.8	21.8	18.5	15.2	10.9
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)